

Serial No. 10/629,642
Response to Office Action Mailed November 28, 2005

Docket No.: 97541.00022

Please amend the claims as follows:

1. (currently amended) A heat transfer system comprising a non-aqueous heat transfer fluid,
the heat transfer fluid comprising a ~~non-buffered~~ propylene glycol containing less than about 0.5 weight percent water, and about 0.05 to about 5.0 weight percent of at least one propylene glycol soluble additive selected from the group consisting of a molybdate salt, nitrate compound and an azole compound, ~~the composition comprising less than about 0.5 weight percent water, the additive not substantially depleting from the heat transfer fluid after about 10,000 hours of use in the heat transfer system~~ wherein the heat transfer fluid contains no additive that requires water in the heat transfer fluid to dissolve the additive or enable the additive to function.
2. (currently amended) The heat transfer system of claim 1 wherein the heat transfer fluid includes from about 84.5 to about 99.85 weight percent ~~non-buffered~~ propylene glycol.
3. (original) The heat transfer system of claim 1 wherein the said molybdate salt is sodium molybdate.
4. (original) The heat transfer system of claim 1 wherein said nitrate compound is sodium nitrate.
5. (original) The heat transfer system of claim 1 wherein said azole compound consists of tolyltriazole.
6. (original) The heat transfer system of claim 1 wherein the said propylene glycol is present in a concentration of about 94.5% to about 99.85% by weight, and the propylene glycol soluble additive comprises a mixture of sodium molybdate, sodium nitrate and tolyltriazole.
7. (currently amended) The heat transfer system of claim 1 wherein said propylene glycol is present in a concentration of greater than about ~~99.0%~~ 98.5% by weight, and said propylene glycol soluble additive comprises a mixture of about ~~0.3%~~ 0.5% sodium molybdate by weight, about ~~0.3%~~ 0.5% sodium nitrate by weight, and about ~~0.3%~~ 0.5% tolyltriazole by weight.

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8. (original) The heat transfer system of claim 1 wherein the heat transfer system is an internal combustion engine heat exchange system.

9. (original) The heat transfer system of claim 1 wherein the heat transfer system is a motor vehicle engine heat exchange system.

10. (currently amended) A non-aqueous heat transfer fluid composition effective for use in heat exchange systems comprising ~~a non-buffered~~ propylene glycol containing less than about 0.5 weight percent water and about 0.05 to about 5.0 weight percent of at least one propylene glycol soluble additive selected from the group consisting of a molybdate salt, a nitrate compound and an azole compound, ~~the composition comprising less than about 0.5 weight percent water, the additive not substantially depleting from the heat transfer fluid after about 10,000 hours of use in the heat transfer system wherein the heat transfer fluid contains~~ no additive that requires water in the fluid to dissolve the additive or to enable the additive to function.

11. (currently amended) The heat transfer fluid of claim 10 wherein the heat transfer fluid includes from about 84.5 to about 99.85 weight percent ~~non-buffered~~ propylene glycol.

12. (original) The heat transfer fluid of claim 10 wherein said molybdate salt is sodium molybdate.

13. (original) The heat transfer fluid of claim 10 wherein said nitrate compound is sodium nitrate.

14. (original) The heat transfer fluid of claim 10 wherein said azole compound consists of tolyltriazole.

15. (original) The heat transfer fluid of claim 10 wherein said propylene glycol is present in a concentration of about 94.5% to about 99.85% by weight, and the propylene glycol soluble additive comprises a mixture of sodium molybdate, sodium nitrate and tolyltriazole.

16. (currently amended) The heat transfer fluid of claim 10 wherein said propylene glycol is present in a concentration of greater than about ~~99.0%~~ 98.5% by weight, and said propylene glycol soluble additive comprises a mixture of about ~~0.3%~~ 0.5% sodium molybdate

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by weight, about ~~0.3%~~ 0.5% sodium nitrate by weight, and about ~~0.3%~~ 0.5% tolyltriazole by weight.

17. (canceled)

18. (withdrawn) The method of claim 25 wherein said molybdate salt is sodium molybdate.

19. (withdrawn) The method of claim 25 wherein said nitrate compound is sodium nitrate.

20. (withdrawn) The method of claim 25 wherein said azole compound consists of tolyltriazole.

21. (withdrawn) The method of claim 25 wherein said propylene glycol is present in a concentration of about 94.5% to about 99.85% by weight, and the propylene glycol soluble additive comprises a mixture of sodium molybdate, sodium nitrate and tolyltriazole.

22. (withdrawn) The method of claim 25 wherein said propylene glycol is present in a concentration of greater than about 99.0% by weight, and said propylene glycol soluble additive comprises a mixture of about 0.3% sodium molybdate by weight, about 0.3% sodium nitrate by weight, and about 0.3% tolyltriazole by weight.

23. (withdrawn) The method of claim 25 wherein the heat exchange system is an internal combustion engine heat exchange system.

24. (withdrawn) The method of claim 25 wherein the heat exchange system is a motor vehicle engine heat exchange system.

25. (withdrawn) A method of cooling a heat exchange system which comprises circulating a composition in said system, said composition comprising at least about 94.5 weight percent non-buffered propylene glycol, and about 0.05 to about 5.0 weight percent of at least one propylene glycol soluble additive selected from the group consisting of a molybdate salt, a nitrate compound and an azole compound, the composition comprising less than about 0.5 weight percent water, the additive not substantially depleting from the composition after about 10,000 hours of use in the heat exchange system.

26. (currently amended) A non-aqueous heat transfer fluid composition effective for use in heat exchange systems consisting essentially of a non-buffered propylene glycol and about 0.05 to about 5.0 weight percent of at least one propylene glycol soluble additive

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selected from the group consisting of a molybdate salt, a nitrate compound and an azole compound, the composition comprising less than about 0.5 weight percent water, ~~the additive not substantially depleting from the heat transfer fluid after about 10,000 hours of use in the heat transfer system.~~

27. (previously presented) The heat transfer fluid composition of claim 26 wherein the heat transfer fluid composition includes from about 84.5 to about 99.85 weight percent non-buffered propylene glycol.

28. (previously presented) The heat transfer composition of claim 26 wherein said molybdate salt is sodium molybdate.

29. (previously presented) The heat transfer composition of claim 26 wherein said nitrate compound is sodium nitrate.

30. (previously presented) The heat transfer composition of claim 26 wherein said azole compound consists of tolyltriazole.

31. (previously presented) The heat transfer composition of claim 26 wherein said propylene glycol is present in a concentration of about 94.5% to about 99.85% by weight, and the propylene glycol soluble additive comprises a mixture of sodium molybdate, sodium nitrate and tolyltriazole.

32. (currently amended) The heat transfer composition of claim 26 wherein said propylene glycol is present in a concentration of greater than about ~~99.0%~~ 98.5% by weight, and said propylene glycol soluble additive comprises a mixture of about ~~0.3%~~ 0.5% sodium molybdate by weight, about ~~0.3%~~ 0.5% sodium nitrate by weight, and about ~~0.3%~~ 0.5% tolyltriazole by weight.

33. (withdrawn) A method of cooling a heat exchange system which comprises circulating a composition in said system, said composition consisting essentially of at least about 94.5 weight percent non-buffered propylene glycol, and about 0.05 to about 5.0 weight percent of at least one propylene glycol soluble additive selected from the group consisting of a molybdate salt, a nitrate compound and an azole compound, the composition comprising less than about 0.5 weight percent water, the additive not substantially depleting from the composition after about 10,000 hours of use in the heat exchange system.

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34. (withdrawn) The method of claim 33 wherein said molybdate salt is sodium molybdate.
35. (withdrawn) The method of claim 33 wherein said nitrate compound is a sodium nitrate.
36. (withdrawn) The method of claim 33 wherein said azole compound consists of tolyltriazole.
37. (withdrawn) The method of claim 33 wherein said propylene glycol is present in a concentration of about 94.5% to about 99.85% by weight, and the propylene glycol soluble additive comprises a mixture of sodium molybdate, sodium nitrate and tolyltriazole.
38. (withdrawn) The method of claim 33 wherein said propylene glycol is present in a concentration of greater than about 99.0% by weight, and said propylene glycol soluble additive comprises a mixture of about 0.3% sodium molybdate by weight, about 0.3% sodium nitrate by weight, and about 0.3% tolyltriazole by weight.
39. (withdrawn) The method of claim 33 wherein the heat exchange system is an internal combustion engine heat exchange system.
40. (withdrawn) The method of claim 33 wherein the heat exchange system is a motor vehicle engine heat exchange system.
41. (withdrawn) A method of cooling a heat exchange system which comprises circulating a composition in said system, said composition comprising at least about 94.5 weight percent non-buffered propylene glycol, and about 0.05 to about 5.0 weight percent of at least one propylene glycol soluble corrosion inhibition additive, the composition comprising less than about 0.5 weight percent water, the additive not substantially depleting from the composition after about 10,000 hours of use in the heat exchange system and the composition not including additives which are not soluble in propylene glycol.
42. (withdrawn) The method of claim 41 wherein the propylene glycol soluble corrosion inhibition additive is selected from the group consisting of a molybdate salt, a nitrate compound and an azole compound.
43. (canceled) ~~A heat transfer fluid composition effective for use in heat exchange systems comprising a non-buffered propylene glycol and about 0.05 to about 5.0 weight percent of at least one propylene glycol soluble corrosion inhibition additive, the composition~~

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~~comprising less than about 0.5 weight percent water, the additive not substantially depleting from the heat transfer fluid after about 10,000 hours of use in the heat transfer system and the composition not including additives which are not soluble in propylene glycol.~~

44. ~~(canceled) The heat transfer fluid of claim 43 wherein the propylene glycol soluble corrosion inhibition additive is selected from the group consisting of a molybdate salt, a nitrate compound and an azole compound.~~

45. (new) A non-aqueous heat transfer fluid for use in a heat transfer system comprising:

- a. propylene glycol;
- b. ethylene glycol in the range of between 0 and 60 weight percent of the total weight of the propylene glycol and the ethylene glycol in the heat transfer fluid; and
- c. about 0.05 to about 5.0 weight percent of at least one additive soluble in propylene glycol selected from the group consisting of a molybdate salt, nitrate compound, and an azole compound, wherein the heat transfer fluid contains no additive that requires water in the fluid to dissolve the additive or to enable the additive to function, wherein the resulting heat transfer fluid contains less than about 0.5 weight percent water.

46. (new) The heat transfer fluid of claim 45, wherein the molybdate salt is sodium molybdate.

47. (new) The heat transfer fluid of claim 45, wherein the nitrate compound is sodium nitrate.

48. (new) The heat transfer fluid of claim 45, wherein the azole compound is tolyltirazole.